

AMENDMENTS TO THE SPECIFICATION

Please replace the first paragraph on page 5 as follows:

EcoR I and *BamH* I restriction sites are added to the two ends of SAK gene, respectively. The SAK gene without the stop codon is introduced in the vector pBV220, resulting in pBVSAK. By PCR method, the *BamH* I restriction site and the sequence coding FXa recognition sequence GSIEGR are incorporated upstream of hirudin gene via a primer (5'-CG GGA TCC ATC GAA GGT CGT ATT ACT TAC ACT GAT TGT ACA GAA TCG-3'). (SEQ:1) The primer matched with downstream of the hirudin gene contains a *Pst* I restriction site. The hirudin gene with a FXa recognition sequence GSIEGR is digested by two enzymes of *BamH* I and *Pst* I, and the above vector pBVSAK is also digested by *BamH* I and *Pst* I. The digested hirudin fragment is inserted into the digested vector pBVSAK to form plasmid pBVSFH (see Figure 1). Said two gene fragments can also be linked by overlapping PCR method. The plasmid pBVSFH is transformed into *E. coli*, and induced to express at 42°C. The desired fusion protein (SFH) is obtained by ion exchange and gel filtration method in a purity of more than 96%. The SFH fusion protein comprises three domains, a SAK sequence, FXa recognition sequence GSIEGR and hirudin. The amino acid sequence of SFH fusion protein is as follows:

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1      sssfdkgkyk kgddasyfep tgpymvnvt gvdgkgnell sphyvefpik
61     pgttlteki eyyvewalda taykefrvve ldpsakievt yydknkkkee
101    sfpitekq fvvpdlsehi knpgfnlitk viiekkgsie gritydcte sgqdlclceg
161    snvcgkgnkc ilgsngeenq cvtgegtpkp qshndgdfee ipeeylq (SEQ:2)
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